

ELECTRIC VEHICLE (EV) FACTS

A lot of research has been done as part of the feasibility studies for both the Town of Portugal Cove-St. Philip's and the Town of Torbay fleet electrification projects. Here are some of the key points we've learned:



New EV Battery Warranty

8-10 years
160,000 km

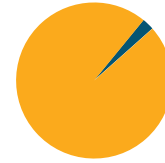


Town Light-Medium Duty Vehicle Replacement Policy

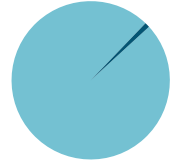
5-9 years
~160,000 km

→ very unlikely that the Town would be on the hook for the cost of a battery replacement

Out-of-Warranty EV Battery Replacements are Rare



2.5%
of all EV models
made since 2011



Less than 1%
of all EV models
made since 2016

Source: Recurrent Auto 2023-2024 study of 20,000 EVs



Cold weather impacts EV battery range (it impacts the range of gas/diesel vehicles too)

- Town vehicles don't usually drive over 100 km/day
- EVs on the market today have 400 km ranges or more
- Average efficiency loss in cold is 20-25%*

*2022 testing by ConsumerReports

→ **no problem**

EV owners spend an average of **40-50% less on maintenance**



No engine oil



No exhaust system

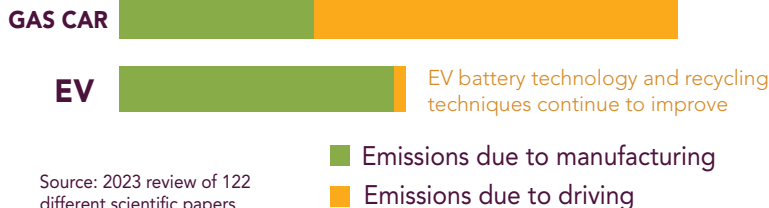


No spark plugs

plus the **brakes** typically last longer on EVs because of the regenerative braking system

Sources: evbuyersguide.caa.ca ; takecharge.nl.ca/evs

EVs have a **lower total carbon footprint** over their lifecycle



Electric engine = ONE moving part

Gas/Diesel engine = HUNDREDS of moving parts

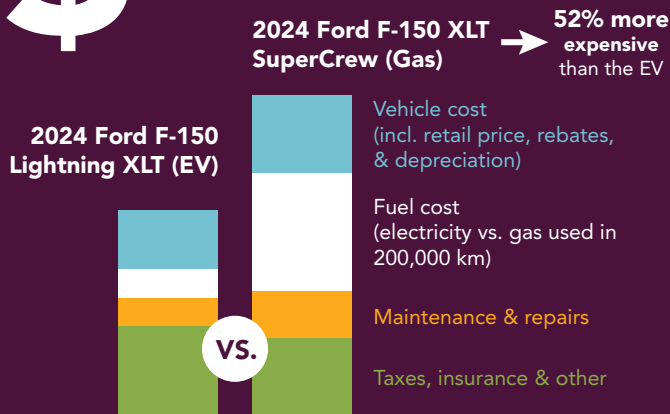
Hybrid/Plug-in-Hybrid = BOTH types of engines

↓
less maintenance savings than 100% Electric

→ Towns only buy vehicles from local dealerships - if the dealership sells EVs, they must be able to service them



EVs have a **lower total cost of ownership**



EVs are **83x less likely** to catch fire than gas vehicles



0.1%
chance of a **gas**
vehicle catching fire



0.0012%
chance of a **EV**
catching fire

If an EV does catch fire, it is harder to put out because of the battery chemistry. Town Fire Departments are aware of EV fire suppression guidelines.

Source: evfiresafe.com

